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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,182	10/22/2003	Gregory Allen Chapman	FL0210USCIP	6777

23906 7590 08/04/2005

E I DU PONT DE NEMOURS AND COMPANY  
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WILMINGTON, DE 19805

EXAMINER

BOYKIN, TERRESSA M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/691,182

Applicant(s)

CHAPMAN ET AL.

Examiner

Terressa M. Boykin

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 1 is rejected under 35 U.S.C. 102(b, or e) as being anticipated by U.S. Pat. No. 5,677,404 see abstract, cols. 2-4, examples ; or US 20050080211 see abstract, pages 1-4 and claims; or US 6645590 see abstract, cols. 1-3 and examples .**

**U.S. Pat. No. 5,677,404** discloses an improved fluoropolymer, wherein the improvement enables the fluoropolymer to be extruded at high speeds without sacrifice of stress crack resistance. This polymer is successfully extruded on to a conductor to make insulated wire of high quality (fewer than 10 sparks and 2 lumps/13 km of conductor coated) at speeds in excess of 1900 ft/min (579 m/min). The UL 444 industry standard for spark failures is no more than 15 spark failures per 45,000 ft (13.7 km) of coated conductor. A spark failure indicates a fault in the insulation. Industry prefers that no more than 10 spark failures be present/13.7 km of insulated conductor to insure acceptable insulated conductor. An additional quality criterion desired by the industry is that for the same length of coated conductor, the insulation should have no more than 2

lumps/13.7 km.

**U. S Pat. No. 20050080211** relates to a partially-crystalline copolymer comprising tetrafluoroethylene, hexafluoropropylene in an amount corresponding to HFPI of from about 2.8 to 5.3, and preferably from about 0.2% to 3% by weight of perfluoro(alkyl vinyl ether), said copolymer being polymerized and isolated in the absence of added alkali metal salts, having a melt flow rate of within the range of about 30. $\pm$ 3 g/10 min, and having no more than about 50 unstable endgroups/10<sup>6</sup> carbon atoms can be extruded at high speed onto conductor over a broad polymer melt temperature range to give insulated wire of high quality.

**U.S. Pat. 6645590** provides articles made from melt-fabricable fluoropolymer resin and having improved mechanical properties. Preferred such articles include tubing and wire insulation, which exhibit improved cut-through resistance.

The reference discloses a process wherein a 400 mL autoclave is charged with 1 g of MAn, then chilled to a temperature of less than -20.degree. C., and 5 mL of 0.16-molar HFPODP in CF<sub>3</sub>CF<sub>2</sub>CF<sub>2</sub>OCFHCF<sub>3</sub> are added. The autoclave is kept cold, sealed, and evacuated. Then, 64 g of VF<sub>2</sub>, 50 g of TFE, and 150 g of CO<sub>2</sub> are condensed in. Cooling is removed and the autoclave is agitated overnight at ambient temperature, with an exotherm of polymerization carrying the reaction mixture to 45.degree. C. The autoclave is vented and product polymer is recovered as white chunks. After devolatilizing the polymeric product under pump vacuum for 3-4 days, the recovered polymer weighs 90.4 g. The TFE/VF<sub>2</sub>/MAn copolymer contains 0.3 wt % of MAn and has a melting point of 160.degree. C. with heat of fusion

of 25 J/g as determined by differential scanning calorimetry on second heating. The polymer (1g) dissolves in 50 mL of acetone or tetrahydrofuran (THF) at room temperature, giving clear viscous solutions after rolling in a bottle. Inherent viscosity in THF at 25.degree. C. is 3.537.

**Claim 2 is rejected under 35 U.S.C. 102( e ) as being anticipated by U.S. 6645590 see cols. 2-6, and claims and excerpt as noted above.**

Each of the references discloses a process for applying (tetrafluoroethylene and hexafluoropropylene to a conductor via extrusion.

In view of the above, there appears to be no significant difference between the reference(s) and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

### **Correspondence**

**Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is

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571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( 571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

  
Examiner Terressa Boykin

Primary Examiner

TERRESSA M. BOYKIN  
PRIMARY EXAMINER